

University of Maine at Presque Isle)
Aroostook County)
Presque Isle, Maine)
A-605-71-E-N)

**Departmental
Findings of Fact and Order
Air Emission License
After the Fact**

After review of the air emissions license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

The University of Maine System in Presque Isle, Maine (UMPI) has applied to renew their Air Emission License permitting the operation of emission sources associated with their Presque Isle facility.

B. Emission Equipment

UMPI is authorized to operate the following equipment:

Fuel Burning Equipment

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Stack #</u>
H2905	1.47	#2 fuel oil, 0.35%	10.5	3FOL
H2906	1.47	#2 fuel oil, 0.35%	10.5	3FOL
H6624	2.44	#2 fuel oil, 0.35%	17.4	2PREB
H2907	1.69	#2 fuel oil, 0.35%	11	7KEL
H2908	1.69	#2 fuel oil, 0.35%	12	7KEL
H4705	2.80	#2 fuel oil, 0.35%	20	6EM
H6930	2.31	#2 fuel oil, 0.35%	16.5	2NI
H4837	2.15	Coal	165 lb/hr	4SH
H3222	2.10	#2 fuel oil, 0.35%	15	4SH
H5001	3.97	Coal	305 lb/hr	3FOL
H2363	3.97	Coal	305 lb/hr	6EM
H3497	3.24	Coal	250 lb/hr	5WI
H4198	2.74	#2 fuel oil, 0.35%	19.6	5WI
Standby Diesel	1.60	Diesel Fuel, 0.05%	11.6	1

C. Application Classification

The previous air emission license for UMPI expired on May 22, 2001. A complete application was not submitted on time, therefore UMPI is considered to be an existing source applying for an after-the-fact renewal. The facility is determined to be a minor source and the application has been processed through Chapter 115 of the Department's regulations.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent best practical treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas. BPT for an after-the-fact renewal requires an analysis similar to a Best Available Control Technology analysis per Chapter 115 of the Department's regulations.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Existing Emission Units

UMPI operates all of their boilers primarily for facility hot water and heating needs. Each of the following boilers burn #2 fuel oil with a maximum sulfur content of 0.35% by weight: H6930, H2905, H2906, H3222, H4198, H4705, H2907, H2908 and H6624. Each of the following boilers burn bituminous or anthracite coal with a sulfur content not to exceed 0.8% and 0.64% by weight, respectively: H5001, H4837, H3497 and H2363. None of the boilers are subject to the requirements of EPA New Source Performance Standard (NSPS) 40 CFR Part 60, Subpart Dc for boilers between 10 and 100 MMBtu/hr.

BPT for the boilers firing #2 fuel oil is:

- Use of 0.35% sulfur fuel.
- For boiler smaller than 3.0 MMBtu/hr, emission rates are based on AP-42 data dated 10/96 for #2 fuel oil fired boilers smaller than 100 MMBtu/hr.

- SO₂, NO_x, CO and VOC emission rates are based on AP-42 data dated 10/96 for #2 fuel oil fired boilers smaller than 100 MMBtu/hr.
- Visible emissions from the stacks serving the oil fired boilers shall not exceed 20% opacity on a six (6) minute block average basis.

BPT for the boilers firing coal is:

- Use of 0.8% and 0.64% sulfur bituminous and anthracite coal, respectively.
- For boilers equal to, or larger than 3.0 MMBtu/hr, emission rates for PM are regulated by MEDEP Regulations, Chapter 103.
- For boiler smaller than 3.0 MMBtu/hr, emission rates are based on AP-42 data dated 10/96 for coal fired boilers smaller than 100 MMBtu/hr.
- SO₂, NO_x, CO and VOC emission rates are based on AP-42 data dated 10/96 for coal fired boilers smaller than 100 MMBtu/hr.
- Visible emissions from the stacks serving the coal fired boilers shall not exceed 30% opacity on a six (6) minute block average basis.

BPT for the Standby Generator is:

- Chapter 106 regulates fuel sulfur content, however the use of 0.05% sulfur by weight fuel is more stringent and shall be used.
- Limiting use to 500 hours/year based on a 12 month rolling total.
- PM, PM₁₀, NO_x, CO and VOC emission limits for the standby generator is based upon AP-42 data dated 10/96 for diesel engines less than 600 horsepower.
- Opacity from the standby generator shall not exceed 30% on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period.

C. Annual Emission Restrictions

UMPI shall be restricted to the following, based on a 12 month rolling total:

- 450,000 gallons per year of #2 fuel oil with a maximum sulfur content not to exceed 0.35% by weight.
- 400 tons per year of bituminous or anthracite coal (0.013 MMBtu/lb) with a maximum sulfur content not to exceed 0.8% and 0.64% by weight, respectively.
- 5,797 gallons per year of diesel fuel with a maximum sulfur content not to exceed 0.05% by weight.

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Total Allowable Annual Emission for the Facility
(used to calculate the annual license fee)

<u>Pollutant</u>	<u>Tons/Year</u>
PM	5.4
PM ₁₀	5.4
SO ₂	16.0
NO _x	14.8
CO	2.5
VOC	0.2

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a minor new source shall be determined on a case-by case basis.

Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-605-71-E-N subject to the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.

- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. § 353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

- (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.

- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.
- (16) **Boilers**
A. Emissions shall not exceed the following:

Boiler H2905, H2906, H6624, H2907, H2908 & H4705

<u>Pollutant</u>	<u>H2905 lb/hr</u>	<u>H2906 lb/hr</u>	<u>H6624 lb/hr</u>	<u>H2907 lb/hr</u>	<u>H2908 lb/hr</u>	<u>H4705 lb/hr</u>
PM	0.18	0.18	0.29	0.20	0.20	0.34
PM ₁₀	0.18	0.18	0.29	0.20	0.20	0.34
SO ₂	0.52	0.52	0.87	0.60	0.60	0.99
NO _x	0.44	0.44	0.73	0.51	0.51	0.84
CO	0.05	0.05	0.09	0.06	0.06	0.10
VOC	0.01	0.01	0.01	0.01	0.01	0.01

Boiler H6930, H3222, H4837 & H4198

<u>Pollutant</u>	<u>H6930 lb/hr</u>	<u>H3222 lb/hr</u>	<u>H4837 lb/hr</u>	<u>H4198 lb/hr</u>
PM	0.28	0.52	0.83	0.33
PM ₁₀	0.28	0.52	0.83	0.33
SO ₂	0.82	0.75	2.51	0.97
NO _x	0.69	0.63	1.49	0.82
CO	0.08	0.08	0.41	0.10
VOC	0.01	0.01	0.01	0.01

Boilers H5001, H2363 & H3497

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>H5001 lb/hr</u>	<u>H2363 lb/hr</u>	<u>H3497 lb/hr</u>
PM	0.12	0.48	0.48	0.39
PM ₁₀	n/a	0.48	0.48	0.39
SO ₂	n/a	4.64	4.64	3.79
NO _x	n/a	2.75	2.75	2.24
CO	n/a	0.76	0.76	0.62
VOC	n/a	0.02	0.02	0.02

B. Visible emissions from each of the stacks listed in Section I.B. shall not exceed 20% opacity on a six (6) minute block average.

(17) Standby Generator

A. The standby generator shall be limited to 500 hours per year of operation (equivalent to 5,797 gallons per year of diesel fuel, 0.05% sulfur maximum), based on a 12 month rolling total. An hour meter shall be installed and operated on the standby generator.

B. Emissions from the standby generator shall not exceed the following:

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.5
PM ₁₀	0.5
SO ₂	0.1
NO _x	7.1
CO	1.5
VOC	0.6

C. Visible emissions from the standby generator shall not exceed 30% opacity on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period.

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(18) UMPI shall not exceed the following fuel use limits, based on a 12 month rolling total:

- 450,000 gallons per year of #2 fuel oil, with a maximum sulfur content of 0.35% by weight
- 400 tons per year of bituminous coal or anthracite coal (13,000 Btu/lb) with a maximum sulfur content not to exceed 0.8% and 0.64%, respectively
- 5,797 gallons of diesel fuel, with a maximum sulfur content of 0.05% by weight

Compliance is based on fuel receipts from the supplier documenting the quantity delivered and the sulfur content.

(19) The term of this Order shall be for five (5) years from the signature below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2001.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: October 9, 2001

Date of application acceptance: November 13, 2001

Date filed with the Board of Environmental Protection: _____

This Order prepared by Mark E. Roberts, Bureau of Air Quality